AMENDMENT TO THE DRAWINGS:

The attached sheet of drawings includes changes to FIGS. 1-6 and the addition of FIGS. 7(a) to 8(b). These sheets replace the original sheets for FIGS. 1-6.

REMARKS

Claims 1 and 2 are amended in order to more particularly point out, and distinctly claim the subject matter which the Applicants regard as their invention. The Applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated November 14, 2008.

In the Office Action, the drawings are objected to and a new drawing requested showing a three-dimensional view of the probe. Applicants have amended FIGS. 1-6 to add reference signs "1112" and "2112" for the tip end of the probe, and "1111" and "2111" for the widthwise end of the base part in order to better describe the invention. New FIGS. 7 and 8 have been added to illustrate the first and second probes, respectively, in three dimensions, as required. All of FIGS. 1-8 now indicate direction "α" for the direction almost perpendicular to the longitudinal direction of the base part. Reconsideration and removal of the objection to the drawing are respectfully requested.

In accordance with the amendments to the drawings, the specification has been amended to add reference numerals "1111", "2111", "1112", "2112" and "α", and add descriptions of new FIGS. 7(a)-8(b).

In the Office Action, Claims 1-2 are objected to for an informality. Accordingly, the "direction almost perpendicular" recited in Claims 1 and 2 is now shown in amended FIGS. 1-8, as

In the Office Action, Claims 1-2 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Maruyama et al. (U.S. 6,791,345) and in view of Flechsig et al. (U.S. 7,176,703) or Ding et al. (U.S. 6,577,147). Reconsideration and removal of these rejections are respectfully requested in view of the present amendments to Claims 1 and 2 and the following remarks.

In the first probe of the invention, as now recited in amended Claim 1, the contact part is configured to have a base part including a tip end adapted to scrub the electrode, and a junction part provided integrally and longitudinally along a widthwise end of the base part exclusive of the tip end. As the junction part is provided along a widthwise end of the base part exclusive of the tip end, the junction part is not contactable with an electrode of an object to be measured but only the tip end of the base part is contactable with the electrode.

In this configuration, by selecting the first material from materials having a good contactability with the electrode, the base part formed of the first material should advantageously provide secure electrical conductivity to the electrode. The presently claimed probe is further advantageous in that the second material to form the junction part can be selected from a wide variety of materials having a thermal expansion coefficient different from that of the first material.

These advantageous features of the presently claimed first probe are not disclosed or taught in the cited art Maruyama et al. Particularly, the probe (6a, 6b) of Maruyama et al., as shown in FIG. 19(b), is formed by bonding two metal plates having different thermal expansion coefficients along their entire lengths, so that both the metal plates are contactable at their tip ends with an electrode

their entire lengths, so that both the metal plates are contactable at their tip ends with an electrode terminal (2a). It is respectfully submitted that it is clear that the presently claimed probe is distinct from the probe (6a/6b) of Maruyama et al.

Further, the presently claimed first probe is distinct from the probe (402) disclosed by Flechsig et al. As shown in FIG. 11 of Flechsig, the probe (402) is formed by bonding memory alloy (902) and a spring (904) along their entire lengths, so that the memory alloy (902) and the spring (904) are both contactable at their tip ends with an electrode (802).

The presently claimed first probe is also distinct from the probes (4) or (5) disclosed by Ding et al. FIG. 3 of Ding et al. shows that the memory alloy core (11) is coated by the highly elastic outer layer (10). When the core (11) is overheated, the outer layer is compressed and exerts a tensile force on the memory alloy core (11). The tensile force helps the probe back to its original length. In other words, the outer layer exerts a force on the core (11) in the opposite direction to the deformation direction of the overheated core (11). It is respectfully submitted that the probe disclosed by Ding et al. has a very different mechanism from the presently claimed first probe.

In summary, it is respectfully submitted that the claimed first probe of the present invention is distinct and non-obvious from probes of Maruyama et al., Flechsig et al. and Ding et al.

In the second probe of the present invention, as now recited in amended Claim 2, the contact part is configured to have a base part including a tip end adapted to scrub the electrode, and a junction part provided integrally and longitudinally along a widthwise end of the base part exclusive of the tip end. The junction part is formed of a shape memory alloy, which can be expanded or

contracted. When the junction part is expanded or contracted, the base par is pushed or pulled by the junction part and brought into elastic deformation, with the result that t ie entire contact part is deformed. The junction part, provided along a widthwise end of the base part exclusive of the tip end, is not contactable with an electrode of an object to be measured.

In this configuration, deformative properties of the second probe dep nd on the junction part, while electrical properties of the probe depend on the tip end of the base part, which functions to contact the electrode of an object to be measured. Therefore, memory allc y forming the junction part, basically independent of electrical properties, can be selected with dis egard to contactability with the electrode. On the other hand, the base part advantageously pro vides secure electrical conductivity to the electrode by selecting a conductive material having a g od contactability with the electrode.

These advantageous features of the presently claimed second prol e are not disclosed or taught in the cited art Maruyama et al. Particularly, the probe (6a, 6b) of Ma uyama et al., as shown in FIG. 19(b), is formed by bonding two metal plates having different thermal expansion coefficients. When heated, the two plates are expanded to different degrees, so that the pro e (6a, 6b) would make bimetallic deformation toward the metal plate with a smaller degree of therm al expansion. In other words, deformative properties of the probe (6a, 6b) depend on both the tw metal plates, i.e., the probe (6a, 6b) deforms on a totally different principle from the claimed sec nd probe. Further, the two plates of the pr be (6a, 6b) are bonded along their entire lengths, so th t both the metal plates are contactable at their tip ends with an electrode terminal (2a). It is respec tfully submitted that it

is clear that the presently claimed probe is distinct from the probes (6a) and (6b) of Maruyama et al.

Further, the presently claimed second probe is distinct from the probe (402) disclosed by Flechsig et al. As shown in FIG. 11 of Flechsig, the probe (402) is formed by bonding memory alloy (902) and a spring (904) along their entire lengths, so that the memory alloy (902) and the spring (904) are both contactable at their tip ends with an electrode (802).

It is respectfully submitted that the presently claimed first probe is also distinct from the probes (4) or (5) disclosed by Ding et al. FIG. 3 of Ding et al. shows that the memory alloy core (11) is coated by the highly elastic outer layer (10). When the core (11) is overheated, the outer layer is compressed and exerts a tensile force on the memory alloy core (11). The tensile force helps the probe back to its original length. In other words, the outer layer exerts a force on the core (11) in the opposite direction to the deformation direction of the overheated core (11). The probe disclosed by Ding et al. has a very different mechanism from the presently claimed second probe.

In summary, it is respectfully submitted that the claimed second probe of the present invention is distinct and non-obvious from probes of Maruyama et al., Flechsig et al. and Ding et al.

In view of the amendments to Claims 1 and 2, and the above remarks, removal of this rejection is respectfully requested.

In view of the aforementioned amendments and accompanying remarks, Claims 1 and 2, as amended, are believed to be patentable and in condition for allowance, which action, at an early date, is requested.

U.S. Patent Application Serial No. **10/565,156**
Response to OA dated November 14, 2008

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures: Replacement Drawing Sheets (FIGS. 1-8)